



Volume 16, No. 1

January, 1965

"Good Flying in 1965"

SEVERSON AIR ACTIVITIES BEGINS HI LINE TRIANGLE AIR SERVICE

Wednesday, December 16, the twice-a-day air service from Great Falls to Cut Bank and Shelby commenced. This inaugural flight by Severson Air Activities of Great Falls, was the end of the period when the two Hi-Line cities were without air service and saw the beginning of daily trips, including Sundays, when it is possible for businessmen and other persons to commute either way, leaving in the morning and returning the same night.

The daily trips, accommodating passengers and freight, will leave Great Falls at 6:30 a.m. for the 40-minute flight to Cut Bank with a stop in Shelby before returning to Great Falls at 8:30 a.m. Afternoon flights will leave Great Falls about 4:30 p.m. and return at 8:30 p.m. The flights will connect with both Western Airlines' morning service to Denver and Los Angeles and the Northwest Airlines' morning service, east and west.

Pilots for the service will be three



Severson's new service receiving final checkout—Shown with the Cessna 320 are: Lt. to rt.: Dick Hickox, Chief Pilot; Lee Mills, FAA's Supervising Inspector, Helena; Arthur Kurth, FAA Flight Standards and Operations Inspector, Helena; Chet Severson, President of Severson Air Activities; Gene Poncelet, Pilot and Bob Lohof, Pilot. (Tribune Photo.)

highly qualified men who are well acquainted with the area and Montana flying conditions; Severson's Chief Pilot Dick Hickox, Robert "Bob"

Lohof and Gene Poncelet. Aircraft used will be a Cessna 320 Twin Engine which has equipment similar to that of the large airline aircraft

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of the
**MONTANA AERONAUTICS
COMMISSION**
Box 1698
Helena, Montana
Tim Babcock, Governor
Charles A. Lynch, Director
Gordon Hickman, Chairman
Walter Hope, Vice Chairman
Carl W. (Bill) Bell, Secretary
Herb Jungemann, Member
E. B. Cogswell, Member
Clarence R. Anthony, Member
Jack R. Hughes, Member



including de-icers, radar facilities, oxygen and complete instrument equipment. A six place single engine aircraft will also be used when load and weather warrants it.

Federal Aviation Agency officials, Lee Mills and Arthur Kurth of the Helena GADO, made a complete check of the proposed air plan and operation; the pilots and aircraft, examined the air patterns and equipment to be used, and the instrument flying and communication techniques, and found all were in strict accordance with the FAA's regulations.

Ticket offices are in the administration building at the Great Falls International airport, the Glacier Hotel in Cut Bank and at Shelby Flying Service in Shelby. (NOTE: The new service is on a 6 months trial basis service—must be used to continue.)



FEDERAL AVIATION AGENCY ITINERARY LISTING

Airport	Jan.	Feb.	Mar.
Bozeman (Gallatin Field)	14		11
Culbertson		10	
Glasgow	20		10
Glendive		24	
Great Falls (International)	7	4	4
Lewistown	27		
Miles City (Municipal)	13		24
Missoula	21	18	18
Sidney	14		25

NOTE: Provisions have been made to give private pilot written examinations on an appointment basis only at the following FAA Flight Service Stations:

Bozeman	Lewistown
Butte	Livingston
Cut Bank	Miles City
Dillon	Missoula

A CASE IN POINT

By Charles A. Smith,
Commission Attorney

"Safety violation carrying passengers in aircraft for which not rated."

On October 14, 1959, defendant's airmen certificate was suspended for thirty days for carrying a passenger in a class of aircraft for which he was not rated, in violation of Section 43.63 of the Civil Air Regulations. On April 26, 1962, and on June 11, 1962, defendant again carried a passenger in a class of aircraft for which he was not rated, in violation of Section 43.63 on each occasion. The examiner concluded that by violating the Section in the three instances he had demonstrated a disposition for violating the regulations and that safety in air commerce or air transportation and the public interest required revoking defendants commercial pilots certificate.

Upon review of the foregoing decision, the CAB concluded that defendant's certificate should be suspended for six months instead of revoked as had been ordered by the administrator and affirmed by the examiner. In concluding that defendant's certificate should be suspended, the CAB stated that revocation in the cases cited by the examiner concerned flagrant conduct substantially exceeding in gravity and extent that which was involved in this case, the CAB said that revocation, unlike suspension, is not warranted, absent a showing that the holder is lacking in qualifications to hold the certificate. The CAB could not find that a lack of qualifications was established by the record. While wilful and deliberate disregard of the Civil Air Regulations is evidence of a lack of qualification to hold a certificate, it does not per se establish disqualification. Thus, the CAB concluded that the administrator did not establish that respondent was not qualified to hold a commercial pilot certificate. Accordingly, the safety in air commerce or air transportation and the public interest did not require affirmation of the administrator's order of revocation.

However, the CAB did find that the defendant's conduct was clearly inimical to the requirement of air safety and a suspension sufficiently severe to deter the defendant from repeating the violations was required. Thus, the defendant's certificate was suspended for six months.

AGRICULTURE AIRCRAFT REGISTRATION PROCEDURES

There is a \$1.00 Aircraft Registration Fee for agriculture aircraft beginning January, 1965. This fee must be submitted with your application form to the Aeronautics Commission at the time you apply for your agriculture aircraft plate.

Regulations of the Montana Aeronautics Commission require that all aircraft used in the distribution of chemicals, seeds or baits be registered annually with the Aeronautics Commission.

The following requirements are to be complied with for each aircraft used in spray operation—commercial or private.

1. Aircraft will currently be covered by Public Liability and Property Damage insurance in the amount of \$25,000/\$50,000 and \$25,000.
2. Certificate of Waiver or Authorization Form FAA 663.
3. Registration Certificate FAA Form ACA 500 will be in order and in the aircraft.
4. Certificate of Air Worthiness FAA Form ACA 1362 will be current and in the aircraft.
5. Current weight and balance as required will be in the aircraft.
6. Operations Limitation FAA Form 309 or FAA Approved Manual will be in the aircraft.

Acceptable evidence of insurance will be a letter from an authorized insurance company giving dates of coverage, amounts thereof, listing of aircraft covered and the owner's name. The insurance company must include a statement that it will promptly notify the Montana Aeronautics Commission of any change in or cancellation of the policy. The above letter must be in the office of the Aeronautics Commission before an agriculture plate can be issued.

REMEMBER: Agriculture aircraft registration is mandatory by state law in Montana and the current plate must be attached to your aircraft.

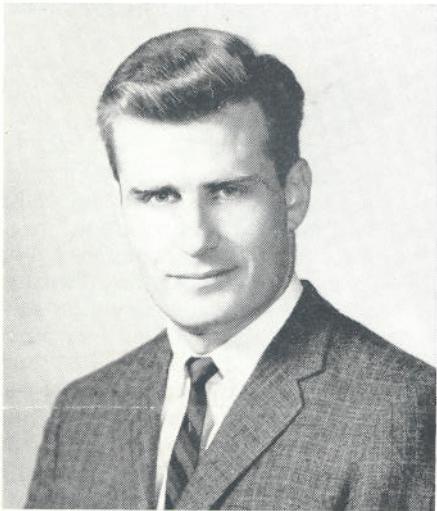
Make certain that all of the above requirements are met when you make application for your 1965 plate, then we will be able to issue your plate without unnecessary delay and expense to you and the Commission.

Do not hesitate to contact the Aeronautics Commission, P. O. Box 1698, Helena, Montana, if you have any questions regarding your aircraft registration.

ROBERT MICHAEL ASSUMES AIRPORT MANAGER DUTIES AT LOGAN FIELD

Robert S. Michael assumed his duties as airport manager at Logan Field in Billings on December 4.

Bob came to Logan Field direct from his position as Assistant Manager of the plant and structures division at Kennedy International Airport in New York City. Bob has spent a number of years in airport management and has the qualifications necessary for his new position in Montana.



Robert S. Michael—Logan Field Airport Manager.

Bob attended high school in New Hampshire and attended Dartmouth College from 1941 until 1951 when his college education was interrupted by 4 years in the United States Air Force. He was assigned to Air Rescue Squadron as Navigator in the United States and in Europe and North Africa during combat. Following his military service, Bob acquired his private flying license and participated in local SAC Aero Club.

He returned to Dartmouth in 1956 and received his BA Degree in 1958 at which time he was accepted as trainee for the Port of New York Authority Administrative Training Program. He later worked in the Director of Aviation's office and in January 1959, Bob became Terminal Services Supervisor at Kennedy—then Airport Operations Supervisor in May, 1960 and was cross-trained as Supervisor of Jet Sound Monitoring Crew. In June of 1962 he became

Facility Property Representative, working directly for the Airport Manager. In July of 1962 Bob became Assistant to the Manager and his duties included daily operating and administration of a 250 man maintenance unit.

Bob states that he is delighted with Montana and is looking forward to his new position. He is particularly pleased that Bob Scarborough is remaining in the capacity of Assistant Manager and feels that Scarborough's continued presence will assist him in the execution of his new duties.

Bob and his wife Betty are presently residing at 2212 Elm Street in Billings.

Letters to the Director

Montana Aeronautics Commission:

Just a note to thank you for the services of the Montana pilot flite plan system, it has been of great value to us in this part of the state. It certainly gives us that added confidence to know that we are on flite plan at the beginning as well as through the trip. I personally use it a great deal. Again, I wish to say thanks!

P. S. The fellows at the Miles City FAA Flight Service Station are to be commended also for their efforts and very friendly cooperation whenever we stop in or pass by, they are a very dedicated group.

Thank You
Gordon W. Heimbuch
Plevna, Montana

Dear Sirs:

Just a note to let you know how much I appreciate the Montana Airport Directory you sent out. It is very useful flying around the state. Keep up the good work.

Chet Sammons
Box 791
Cut Bank, Montana

Dear Sirs:

Enclosed find new Pilot Registration and \$1.00. Keep up the good work and fight for our navigation aids. We need them more in this part of country than in others. We can't all have \$30,000 worth of radio gear.

Merry Christmas
Sincerely
Leonard H. Droste

DIRECTOR LYNCH APPOINTED TO NATIONAL COMMITTEES

Information received from the National Association of State Aviation Officials states that Mr. Charles Lynch, MAC Director, has been appointed by NASAO President Bement to three committees for the coming year.

The committees on which Director Lynch will serve are: "Aviation Safety" as Chairman and as a member of "Search and Rescue" and thirdly, "Resolutions."

The notification quoted from the NASAO manual the "job specs" and the responsibilities of the committees and stated that the assignments were made with "an attempt to assure an optimum of talent and experience on each committee."

We feel that these appointments are a direct show of confidence not only in our Director but also the Aeronautics Commission and the progressive outlook and action of Montana's Aviation Industry.

'65 REGISTRATION ROLLING IN

The Commission is pleased to state that 1965 Pilot Registration is coming in at the rate of approximately 65 registration forms a day. To date we are ahead of last years registration and we urge that Montana pilots continue to apply for their '65 registration as soon as possible. The new '65 pilot cards will be issued and in the mail shortly after the first of January.

We also wish to thank you pilots on the completeness and accuracy of the incoming forms.

For pilots who are registering for the first time in Montana and for the few that may forget—we are including the following reminders:

1. Please, do not cut the registration form—fold if necessary—but due to our method of filing—the cards must not be cut.

2. Check that you have enclosed your \$1.00 registration fee.

3. Check that you have included your current mailing address, your FAA Certificate Number and total number of hours.

Thanks again to all that have registered on time! To all others we say—**FLY LEGAL-REGISTER TODAY!!!**

1965 Revisions for the Airport Directory will be forwarded to all registered pilots after February 1, 1965.

AVIATION SAFETY DISCUSSIONS

By D. M. Gretzer

Former Chief, General Safety Div.
FAA Alaska

"COLD WEATHER SAFETY"

Snow and Frost

Recently a pilot was seen taking off with a couple of inches of snow on the wings. The airplane staggered along for several miles "like a mad crop duster" before reasonable control was obtained.

The pilot got away with it. The question is this: On the basis of his experience, does he believe that since he "just made it" with two inches of snow, he surely ought to make it with a half inch?

If he believes so, he is a bad risk, for he has not properly profited by his narrow escape. A film of frost, a thin layer of snow, may cause him to lose complete control of the airplane the next time.

1. The performance of an airplane during take-off with snow, frost or ice on the wings **cannot be predicted**.

2. The airplane **usually becomes unmanageable** shortly after leaving the ground.

3. The thickness of the deposit on the wings is not an indication of relative performance.

4. This knowledge is now almost ancient history, but for some reason, experienced and inexperienced pilots will be tempted to try it "just this time." It's hard on the airplane.

In thinking back over accidents which have happened because of frost, it occurs to me that they happen about as often to experienced Alaskan pilots as they do to the uninformed.

The simple answer would be to stay home if there is any frost on the wings. But the simple answer is not practical. Hangars are usually out of the question. Sometimes the wind is too strong to put wing covers on, then, when the calm comes, so comes the frost.

Sometimes frost forms so rapidly that the wings have frost on them even if the covers are not taken off until ready to taxi the airplane. Then, of course, sometimes wing covers are not available when needed.

So the next best thing to do is to try to rub as much frost off as possible, or at least to smooth the surface as much as possible, usually by sawing a rope back and forth over the wing, sometimes splitting the cold fabric over the ribs in the process.

The pilot knows the airplane does not perform as good as though it were clean, but it does all right. The cleaning job is a nuisance, and as he learns what his particular airplane does, he shortens the job to a minimum.

Then comes the day when the deposit of frost is obviously less than the residue which had been left from his previous cleaning operation, so he decides not to bother this time.

Sometimes the airplane flies, but then again, sometimes it does not. It all depends upon the degree of skin friction developed by the granular structure of the frost, not upon the quantity of the frost. The long run of events shows that we are all poor guessers as to the effect of a given frost deposit.

It is best to polish the frost down to as smooth a condition as possible. It may be hard work, but airplane prices and hospital expenses both keep going up. The question of whether to clean up or not is, in the long run, a matter of whether we can afford not to.

Frost on Airfoil Surfaces

Recently, a Cessna 170 was damaged due to a combination of circumstances, including poor control, because of frost formations.

The pilot cleaned the frost from the upper surfaces of the wings and the horizontal stabilizer and elevators. He did not clean the lower surfaces, but noticed frozen droplets on the lower wing surfaces.

The take-off was sluggish, the controls "mushy" with practically no elevator response. The airplane pitched unstably both up and down, partially controlled with large elevator movements.

The pilot returned to the field, and during the final approach struck the ice because of a combination of loss of elevator control and white-out which made it almost impossible to tell where the ice surface was.

Discussion

Most people will agree that it is more important to free the upper surfaces from frost, and that the lower surfaces are less important. This is probably true so far as the wings are concerned, but it does not apply to the horizontal tail surfaces.

The reason for this is that the horizontal surfaces continually carry an aerodynamic download. If on some airplanes, the stabilizer looks like it has a positive angle of incidence, it will still have a negative angle of at-

tack, because its angle of incidence is fixed by the manufacturer so that the down-wash of air from the wings in passing over the tail will be at a chosen negative angle of attack to the air stream. This provides a download to compensate for the fact that the airplane is built with the center of gravity in front of the center of lift for stability reasons.

Therefore, anything which spoils the streamline flow of air across the undersurfaces of the stabilizer and elevator, such as frost, ice, torn trailing edge fabric or tape will have a bad effect on elevator control because the airplane will become unbalanced toward a nose heavy condition. Moderate to serious buffeting can also occur.



A recent addition to the MAC film library is a 20 minute color film, "The Best Investment We Ever Made," produced by the Federal Aviation Agency and narrated by Arthur Godfrey. The film demonstrates how the airport, as a transportation terminal benefits the whole community and depicts the executive and business use of the aircraft and the airports importance in the movement of goods.

Listed below are the films available at the present time from the MAC Library.

Agricultural Aviation—14 minutes, color.

Airport America—14 minutes, color.

Air Taxi, U.S.A.—15 minutes, color.

Aviation and the States—21 minutes, color.

Flight Decision—14 minutes, color.

Flying Businessman—14 minutes, color.

Tom Jones, Night Flying Farmer—10 minutes, color.

Roads in the Sky—15 minutes, color.

To Save a Life—14 minutes, color.

Montana and the Sky*—17 minutes, color.

Flying the VHF Omni ranges—24 minutes, black and white.

Approach to Lane, GCA—24 minutes, black and white.

Approach to Lane, ILS—27 minutes, black and white.

*Available to out-of-state viewers.

WANTED: Experienced spray pilots and mechanics. Opportunity to have own flying operation. **CONTACT:** Walter Huffman, Sky Flight, Inc., Big Timber, Montana.

THE SECOND MONTANA AVIATION MECHANICS SEMINAR COMPLETED

Twenty Four Montana aviation mechanics completed the 8-day seminar, sponsored by the Montana Aeronautics Commission with the assistance of the Aeronautics and Related Trades Department of the Helena High School and held in their facilities on the Helena Airport; three major aircraft companies, Cessna Aircraft Company, Beech Aircraft Corp. and Piper Aircraft Corp., their component manufacturers, the Federal Aviation Agency and the Electronics Consultants Service of Billings, held from November 30th through December 7th.



The group of trainees at the awards banquet.

TRAINEE ROSTER

Alton D. Anderson, Jr., Lynch Flying Service—Billings

H. D. (Doug) Anderson, Flight Line, Inc.—Belgrade

Harold P. Anderson, Anderson Flying—Wolf Point

Jack Archibald, Glacier View Skyways, Inc.—Kalispell

Gale K. Beedle, Johnson Flying—Missoula

Joseph C. Engel, Jr., Point Aero Service—Wolf Point

Floyd Ferguson, Ridonlee—Kalispell

Michael D. Ferguson, Big Sky Maint.—Billings

Elmer G. Finneman, Severson Air Activities—Great Falls

Leroy L. Gillet, Gillis Aviation—Billings

Robert Horinek, Self employed—Hingham

John Hyko, Jr., Morrison's Flying—Helena

Rudolf E. Jacobson, Modern Aire Flight Service—Culbertson

Jimmie J. Johnson, Montark, Inc.—Lewistown

C. Mike Mellinger, Skyway Aircraft Repair—Great Falls

Albert W. Petersen, Self employed—Sidney

Stanley G. Read, Missoula Skyflite—Missoula

W. M. Rush, Self employed—Scobey

Larry Stockhill, Self employed—Kalispell

Glenn Stott, Self employed—Great Falls

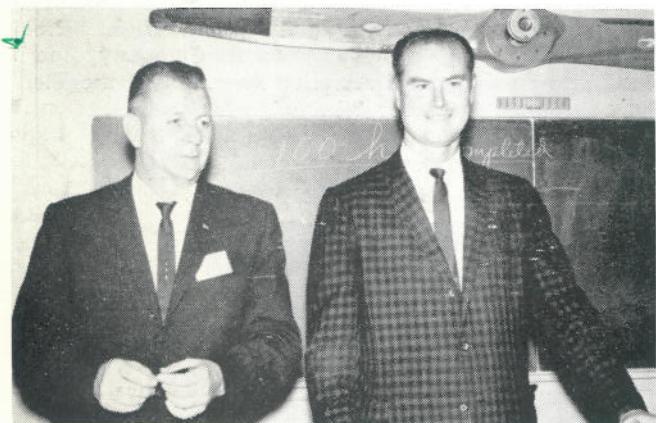
Robert L. Tomalino, Glendive Flying—Glendive

Ray Wicks, Johnson Flying—Missoula

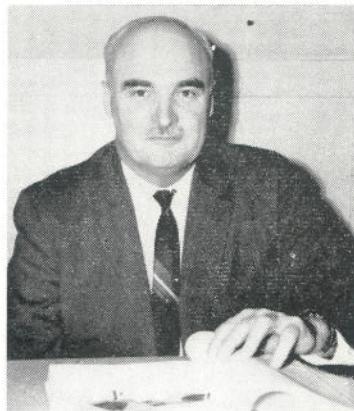
Keith Wilhelm, Missoula Skyflite, Inc.—Missoula

Louis Wolfer, Johnson Flying Service—Missoula

INSTRUCTING ON THE SEMINAR WERE REPRESENTATIVES OF THE PARTICIPATING COMPANIES AND THE FAA



Left to right: Donald Wright FAA GADO—Billings and Lee Mills, FAA GADO—Helena.



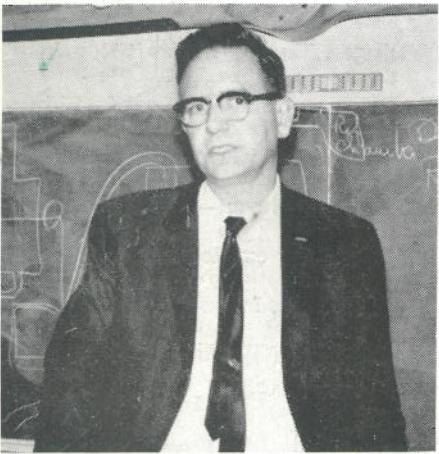
Ed Timm, from the FAA Central Region office, Kansas City, Missouri—Observed for several days during the Seminar.



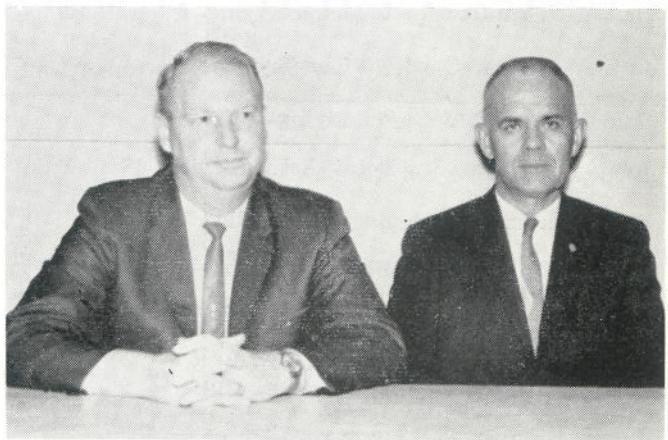
Lester Diehl of Piper Aircraft Corporation, Lockhaven, Pa.



Kenneth E. Gardner, Cessna Aircraft Company, Wichita, Kansas.



Alan Eurich, Electronic Consultants Service (ELCON) Billings, Montana.



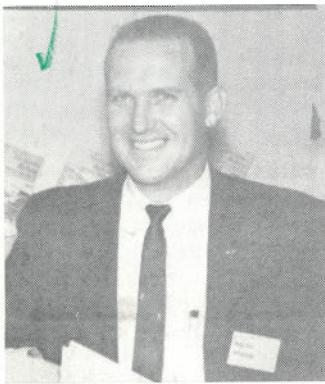
Left to right: R. T. Nielsen and Oscar S. Kimzey of Beech Aircraft Corporation, Wichita, Kansas.



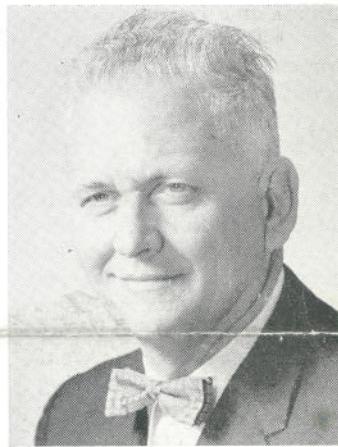
Left to right: Dale Norton of Combs Aircraft, Inc., Denver, Colorado, shown with James M. McEniry, Pacific Airmotive Corporation, Seattle, Wash.



Fred Costello of Mid-Continent Airmotive Corp.-Denver, Colorado, giving the Scintilla presentation.



Ralph M. Persun, Jr., Lycoming Division—Avco Corporation, Oklahoma City, Oklahoma.



Kenny Johnson, Bendix Corporation, Wichita, Kansas.



Gordon R. Hickman, MAC Chairman, giving his banquet address. Mr. Hickman then presented the trainees with their award certificates.



A. B. "Tony" Orgain, Champion Spark Plug Company being presented with his appreciation certificate by Course Manager, Jack Wilson, MAC, Safety and Education Officer.

1964 AVIATION MECHANICS SAFETY AWARD NATIONAL WINNERS ANNOUNCED

Lee Mills
FAA, General Aviation Inspector
Helena, Montana

Mr. Harry A. Palmer, a 34-year old shop foreman employed by Champs Aviation, Midland, Texas was named by the FAA as the national winner for the General Aviation Mechanic Safety Award.

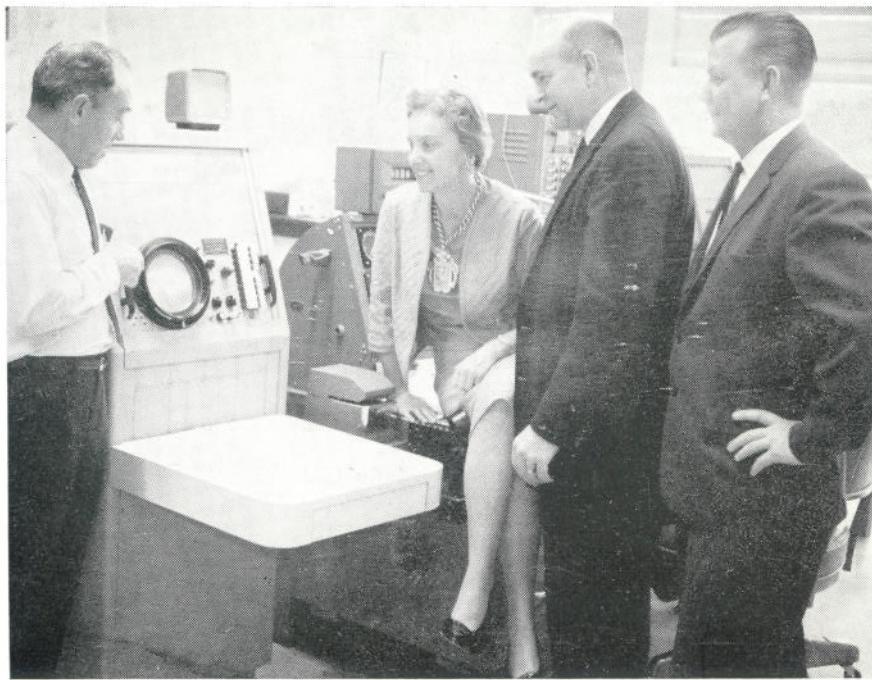
Mr. Palmer and J. R. "Bob" Schneider of American Airlines; the Air Carrier winner were picked by a committee of distinguished representatives from aviation selected by the Flight Safety Foundation of New York. Chairman of the Committee was James T. Pyle, former Deputy Administrator of the FAA. Mr. Palmer will be presented a trophy by Mr. Halaby at a special ceremony to be held at FAA headquarters in Washington. The award is a specially created medallion, donated by American Aviation Publications of Washington. The firm also donated plaques which were presented to the 14 regional winners of this year's program.

Mr. Palmer has been employed by Champs Aviation since 1955. He went to work for the company following service with the Air Force at Gary Air Force Base, San Marcos, Texas where he was assigned as maintenance inspector and flight line chief.

Palmer won his general aviation award for his contribution to the development of an improved fuel strainer drain valve to prevent fuel seepage below the cockpit floor in the nose gear well of the Cessna Model 210 aircraft. The fuel had been leaking past the "O" ring and was backing up into the control housing and causing a fire hazard. Palmer's work resulted in the Cessna Service letter 63-10 pertaining to the fuel strainer drain valve. Palmer attended Texas Tech College, majoring in petroleum engineering. He lives with his wife and four children at 4412 Harlowe Drive, Midland, Texas.

FOR SALE: LATE 1958 CESSNA SKY-LANE 182—196 hours on \$2,000 chrome major by Mercury Aviation, Minnesota—37 hours on factory overhaul prop—1,166 total time. Full IFR equipped with 6 cyl. primer, con—2 month old new Narco Mark IV with Omni LFR-3. New heavy duty nose gear—new tires, brake blocks and disc. Interior and exterior in perfect condition. License to May 11, 1965. PRICE \$8,750. Will deliver for expenses. CONTACT: John Bragg, 19 Carol Lane, Livingston, Montana. Phone 222-2990.

EMIL OLSON VISITS MONTANA



Lt. to Rt. George Corning, Chief of Billings Flight Service Station; Marge Rolle, Aviation Clerk, GADO; Emil Olson; Charles D. Wright, General Maintenance Inspector, Billings GADO. The group is shown viewing the new Direction Finding Equipment recently installed in the Flight Service Station at Billings, Montana. The new Direction Finding Equipment which is completely transistorized, having 16 VHF Antennas and 16 UHF Antennas, was recently completed at Miles City and will be installed at Butte, Great Falls, and Missoula during '65 and '66.

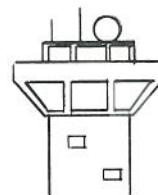
Emil Olson, familiar aviation figure for over 17 years in Montana, recently visited a number of FAA installations on an itinerary trip through Nebraska, the Dakotas and Montana. Emil was highly respected as a Flight Service Station Chief, and he was known and appreciated as a strong Montana aviation supporter, his many friends enjoyed the opportunity to visit again with him.

Emil was Chief of the Flight Service Station in Missoula from 1946 through October 1964 when he was assigned to the Evaluation and Investigation Staff of the FAA's Central Region Office in Kansas City.

Previous to his 1946 Missoula assignment, Emil held a number of aviation positions in Montana. He entered duty with the FAA at Dillon in 1938—was stationed for a short time in Whitehall, then assigned as Chief of the Belgrade/Bozeman Flight Service Station. In 1942 he became Chief at Missoula. Emil then spent one year in Seattle and Oklahoma City in charge of the Alaskan Training Center, however, wishing to re-

turn to Montana, he exercised 'restoration rights' in December of 1946, and assumed his former position as Chief of Missoula Flight Service Station, where he remained until his departure for Kansas City in November of 1964.

MONTANA TOWER CONTROLLED AIRPORT OPERATIONS



TOWER

OPERATIONS

November, 1964		
	Total Operations	Instrument Operations
Great Falls	6,405	508
Billings	5,442	746
Missoula	4,268	332
Helena	2,473	156

If you learn from losing, you haven't lost.

CONGRATULATIONS



CERTIFICATES ISSUED RECENTLY TO MONTANA FLYERS

Robinson, Samuel L., Roundup—
Student
Green, Melvin V., Volberg—Student
Fraser, Carol L., Lewistown—
Student
Karch, John Jr., Baker—Student
Olsen, Judith D., Billings—Student
Hallesey, Robert E., Plentywood—
Student
Williamson, Edward J., Billings—
Student
Smith, John Hawley, Laurel—
Student
Miles, Charles W., Miles City—
Private
Markos, George T., Rosebud—
Student
Hockett, Bryan E., Miles City—
Student
Osen, Toby O., Billings—Student
Bradbury, Joseph E., Glasgow AFB
—Mil. Comp. Comm. Mel. &
Instrument
Kellogg, Robert J., Glendive—
Private
Meyer, Harlan G., Roundup—
Student
Orley, Joan Marie, Lewistown—
Student
Case, Mary Carolyn, Billings—
Private
Halverson, Monty Wayne, Sidney—
Student
Phair, James Rupert, Froid—Private
Mansing, Edward M. Jr., Glendive—
Student
Ludwick, John L., Big Timber—
Private
Walikonis, Mary Jean, Reserve—
Student
Nessan, Richard, Lewistown—
Student
Rogers, Charles W., Lewistown—
Student
Noyes, Alan W., Fairview—Private
Lalonde, Beverly E., Sidney—
Student
Rees, Ronald M., Sidney—Student
Kleinsasser, Raymond R., Sidney—
Student
Suckstorff, Leslyan O., Sidney—
Student

Murray, James Albert, Savage—
Private
Carey, T. Hurly, Sidney—Private
Shellered, Lee W., Richland—Private
Wagmild, Clarence V., Plentywood—
Private
Albright, Rolan T., Roundup—PP
on Mechanic
Elliott, Bonnie J., Winnipeg, Manitoba—Private
Pulvermacher, Carl Gerald, Ashland—
Private
Christianson, Carl Robert, Livingston—Private
Kirkpatrick, Charles A., Bozeman—
Private
Barovich, John S., Billings—
Instrument on Private
Shaw, John A., Billings—Instrument
on Private
Campen, Edward J., Billings—
Student
Butler, Glen Eugene, Lewistown—
Student
Bell, Carl Wilford, Glasgow—
Instrument on Comm.
Pence, Steven W., Ballantine—
Student
Stephens, Clarence P., Missoula—
Private
McQuirk, Bill E., Missoula—Student
Roberts, Russell L., Hamilton—
Student
Milstead, John L., Hamilton—
Student
Palmer, Eldon E., Missoula—Student
Matovich, Bill Martin, Regina—
Student
Kenna, Peggy T., Livingston—
Student
Horstman, Gerald R.—Instrument
rating added to Com.
Anderson, Gary Thomas, Missoula—
Student
Meehan, Daniel L., Deer Lodge—
Student
Nelson, Frederick K., Joplin—
Student
Hall, Carleen S., Great Falls—
Student
McVay, Clifford, Great Falls—
Student
Blackmore, Eileen N., Helena—
Student
Bowman, Rosemary L., Belt—
Student
Bloom, Delbert E., Lewistown—
Student
Jermunson, Carter Powell, Brady—
Student
Cerkovnik, Edward A., Malta—
Student
Thorsen, Frank G., Great Falls—
Instr. added to Com. ASMEL
LaFond, Maynard J., Malta—Student

Gjervold, Stephen, Malmstrom AFB
—Student
Erickson, William Lerton, Helena—
Student
Hotchkiss, John A., Malta—Student
Morrison, John F., Kalispell—
Private
Buus, Darrell L., Great Falls—
Student
Mamuzich, Anna, Conrad—Student
Spears, Larry D., New Orleans, La.—
Student
Edgren, Woody B., Everett, Wash.—
Student
Poletto, Danny A., Great Falls—
Student
Kaminga, Rodney R., Bozeman—
Student
Smith, William J., Butte—Student
Crawford, John M., Valier—Student
Johnson, Alfred J., Anaconda—
Student
McOmber, Forrest L., Butte—
Student
Kochi, Kenneth T., Honolulu, Hawaii—Private
Ehlert, Darrell R., Helena—Student
Stevenson, Mary L., Missoula—Flt.
Instr.—Airplanes
Croskrey, Robert F., Bigfork—
Student
Broune, James E., Great Falls—
Student
Stradley, David I., Belgrade—Basic
Ground Instructor
Schmidt, Dana C., North Dakota—
Student
Waldenberg, Samuel W., Great Falls—
Student
Nowland, Alvin D., Cut Bank—
Student
Rice, John M., Great Falls—Private
Bitz, Sharel H., Havre—Com.
Liudahl, Daniel W., Kalispell—
Student
Fisher, Gilbert D., Helena—Student
Wix, Robert O., Helena—Private
Baker, Eugene E., Great Falls—
Student
Smith, Richard W., Great Falls—
Student
Keenan, Dr. Thomas M., Great Falls
—Blue Seal on Private
Jensen, John E., Bozeman—Private
Hensley, Dennis G., Havre—Comm.
Holman, Robert C., Great Falls—
Student
Webber, Michael D., Great Falls—
Student
Melvin, Virginia F., Great Falls—
Student

FOR SALE: 1959 Forney—Air coupe—Narco VC27. T&B ROC Sen. Alt. Rot—Beacon Chrome Jugs—C9012F Eng. All Metal—Perfect condition. PRICE: \$3,500.00 CONTACT: Skycraft, Lewistown, Montana, PHONE 538-5457.

MAC DIRECTOR ATTENDS KANSAS CITY CONFERENCE



State Aviation Officials attending the Conference. Seated (Lt. to Rt.) Charles Lynch, Director—Montana; James Ramsey, Director—Michigan; E. C. Marsh, Director of FAA's Central Region; Robert Nemmers—Iowa; D. Gene Steuart—Kansas. (Standing Lt. to Rt.) Thomas K. Jordan, Director—Wisconsin; L. E. McCabe, Director—Minnesota; James Sandstedt, Director—Nebraska; L. V. Hanson, Director—South Dakota; J. E. Wenzel, Director—Illinois.

Director Lynch attended the FAA/State Aviation Directors' Conference in Kansas City, Missouri on December 1 and 2.

One main concern of our Director in attending the conference was to review Montana Navigation and Communication facilities. Mr. Lynch also reported that several portions of the conference of particular interest to Montana Aviation were a "Brain-storm" Session-Accident Prevention with E. C. Marsh, Director of the FAA's Central Region and Staff as Discussants and "Privately Owned Airport Tax Problems" with C. K. Pettigrew an Indianapolis Attorney as Discussant.

Among the other session's held were: Non-Federal Navigation Aids, Modernized Flight Service Station System, Revision to Part 77, Federal Aviation Regulations (Current Status), FAAP Policy and Procedures, New technical Standards for Airports, and Compliance Program on Airports.

FOR SALE: Two Piper Tri-Pacers—Clean—low time. Priced for immediate sale: CONTACT: Sky Flight, Inc., Big Timber, Montana.

AIRPORT NOTES



By James H. Monger
Assistant Director, Airports

Libby—A meeting will be held in January at Libby to discuss the plans for building a new airport to serve that city. In attendance at the meeting will be the Lincoln County Commissioners, Montana Aeronautics Commission, the Federal Aviation Agency, the Lincoln County Airport Board, and the consulting engineer. It is proposed that the construction specifications can be finalized this winter so that the project will get under way during the summer of 1965.

Polson—The Montana Aeronautics Commission has approved a preliminary engineering grant in the amount of \$1,000 to the Lake County Airport Board and City of Polson. The engineering grant will be used to aid in the financing of a study that will determine the future expansion and redevelopment of the Polson Airport. It is proposed that the runway will be extended and paved. Morrison and Maierle Consulting engineering firm of Helena, has been retained to submit the engineering study.

Airport NOTAM—Yellowstone Airport—The new airport at West Yellowstone is open to ski operations only. There is approximately 36 inches of snow on the level on the airport. There are no aviation services or facilities available during the winter months. Use daylight hours only, no lights.

Lincoln—The new VFR Airport at Lincoln is open to ski operations only during winter months, and no aviation services are available. Use daylight hours only, no lights.

Ross International—The border crossing airport at Sweetgrass issues its field conditions to the flight service station at Cut Bank. Contact Cut Bank FSS for current field conditions.

Elliott Field—The emergency field on Rock Creek near Clinton, Montana,


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WANTED TO BUY: For Cash, a Cessna 180, 182, or Cherokee 180 C. Dealers and Individuals invited. If you have one of the above planes for sale get in contact with Wayne A. Edsall, P.O. Box 680, Bozeman, Montana: PHONE: 587-7635.

reports its field conditions to the FSS (Flight Service Station) at Missoula. Contact Missoula FSS for current existing field conditions.

INSTRUMENT PILOT EXAM-O-GRAM NO. 11

COMMUNICATIONS PROCEDURES FOR PILOTS ON IFR FLIGHT PLANS

Many applicants taking the Instrument Pilot Written Examination have difficulty with test items concerning IFR radio-telephone procedures, techniques, and phraseologies. The services of Air Traffic Control (ATC), as well as the ability of a pilot to make maximum use of these services, are dependent on effective communications. Several pages in the Flight Information Manual specify pilot actions and responsibilities in this area, and these pages should be studied carefully. The following questions and answers cover many problems involving IFR radio-telephone communications and may help to increase pilot understanding in this important area.

1. What is a Center **Sector** Discrete Frequency and why is it necessary? It is a "semi-private" frequency on which the pilot of an IFR flight has **direct** communications with the controller handling the flight.

An Air Route Traffic Control Center (ARTCC) has jurisdiction over a large geographic area, within which 100 or more IFR flights are often operating simultaneously. Direct communications cannot be maintained with these flights on any one frequency, nor can the flights be handled by one controller. Consequently, the ARTCC is divided into sectors; each sector is handled by one controller, or team of controllers, and has its own sector discrete frequency. As an IFR flight progresses from one sector to another, the pilot is requested to change to the appropriate sector discrete frequency.

2. What is a Center **Area** Discrete Frequency? It is a back-up for the center **sector** discrete frequencies and is available to each sector in the ARTCC. It is always monitored by at least one controller, who can quickly put an IFR flight in radio contact with the appropriate sector.

3. What communications frequency, or frequencies, should the IFR pilot monitor?

Pilots who have sufficient radio equipment for direct pilot controller communications monitor frequencies as directed by ATC. Departing pilots are instructed when, and on what frequencies to contact Clearance Delivery, Tower, Departure Control, and appropriate Center Sectors. ATC assumes that pilots will make frequency changes as directed, will "check in" on newly assigned frequencies, and **will monitor the assigned frequency at all times**. In case of inability to establish communication on a newly assigned frequency, pilots are expected to follow a prescribed procedure to reestablish communication. This procedure is outlined in the Flight Information Manual.

Pilots with limited radio equipment normally monitor the voice feature of the facility being used for navigation, and this procedure usually requires that clearances and instructions be relayed through an FSS (Flight Service Station). The extra time consumed during this relay can be a severe handicap to IFR operations in high density areas.

4. How does the IFR pilot receive Sigmet, Advisories to Light Aircraft, and other specific or general weather information while enroute?

The IFR pilot who is monitoring the voice feature of a navigation aid with a "B" radio class designation (MBVOR, H-BVOR TAC, etc.) will hear all special and scheduled weather broadcasts. These broadcasts do not interfere with the pilot's monitoring ATC, because the broadcasts may be interrupted to relay an air traffic clearance.

Pilots in direct communication with the ARTCC should monitor the navigation aid voice feature at sufficient volume level to be aware of special and scheduled broadcasts, and possible interruption of the station identification. **Pilots should not voluntarily interrupt their listening watch on the assigned discrete frequency**. Centers may direct a pilot to contact an FSS for weather information, or may authorize a pilot's request to do so.

5. Should "type of flight plan" be included in position reports made by IFR pilots?

Not if the position report is made directly to the controlling ATC facility (center or approach control). For initial contact, state aircraft identification and the name of the reporting point when requested to "GO

AHEAD," give the report in accordance with suggested phraseology.

If the position report is made to an FSS, it is **necessary** to state the type of flight plan. This will alert the FSS that the position report must be relayed to ATC.

6. Why is standard phraseology important in ATC radio-telephone contacts?

Standard phraseology helps pilots organize their transmissions, reduces the possibility of misunderstanding, and saves time on the frequency. Remember that the controller may be working with a dozen or more aircraft on the same sector discrete frequency, and other pilots may be waiting to use this "party line."

7. If a pilot on a VFR flight encounters weather below VFR minimums and wishes to continue IFR, how should he make initial contact with ATC?

Pilots enroute should contact the nearest FSS for relay of communications, or for assignment to the appropriate Center **Sector** Discrete Frequency. The Center **Area** Discrete Frequency, if known, could also be used for the initial contact.

Pilots in the vicinity (for example —20 miles) of a destination airport which is served by an Approach Control may expedite receipt of an ATC clearance by calling Approach Control on an appropriate frequency.

IFR flight plans filed in flight impose an extra load on ATC and often result in delaying the pilot; for this reason, they should be filed at least 30 minutes in advance of clearance request whenever possible. If it becomes necessary to file in flight, state that the flight is VFR (if in controlled airspace), give reliable position information, and maintain VFR conditions until clearance is received.

8. What may you do to develop good radiotelephone techniques?

1. **Study the pilot instructions and phraseology examples in the Flight Information Manual.**

2. **Practice correct phraseology for position reports, speak distinctly, and identify yourself positively.**

3. **Know how to make the best use of the radiotelephone equipment in your aircraft.**

4. **Monitor ATC on the appropriate frequency at all times.**

5. **Listen to what is being said on the frequency.**

6. **Be as brief as practicable in your contacts.**

7. Always be alert to receive and copy instructions.
8. Learn to copy clearances quickly and accurately.
9. Don't accept a clearance unless you understand it and can comply with it.
10. If your aircraft has limited frequency capability, advise ATC of this fact. Don't accept instructions to make contact on a frequency you don't have.

**NEW 1965 REVISIONS
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CALENDAR

JANUARY 1965—PILOT REGISTRATION DUE!

January 13, 1965—Helena—Montana Aeronautics Commission monthly meeting.

May 8, 1965—Spokane, Washington; Dedication Ceremony; new air terminal Spokane International Airport 2:00 P. M. Saturday, (Watch for further details.)

May 26, 27, and 28, 1965—Nassau Bahamas, 15th All Women's International Air Race. Sponsored by the Bahamas Ministry of Tourism with the Florida Women Pilots Association directing all technical phases of its organization and conduct. \$2,500 purse. For additional information contact Florida Women Pilots Association, Inc. Mrs. Vera

Bratz, Race Chairman, 1840 S. W. 85th Avenue, Miami, Florida. (Watch for further details.)

June 12, 1965—West Yellowstone, Montana. Dedication Yellowstone Airport. Scheduled Western Airlines inaugural flight. (Watch for further details.)

FOR SALE: Piper Tri-Pacer—Full Panel w/elec attitude gyro—New Naugahyde Upholstry—Paint and Irish Linen covering—June 1962—Radio, Narco Superhomer—Low Freq. receiver—1,100 hours TT A&E—Topped at 700 hours—Compression very good—Aircraft excellent all around—**PRICE:** \$3,950—**CONTACT:** Jack Thomas—2900 Gladstone Ave.—**PHONE:** 792-7585—Butte, Montana.

FOR SALE: 1946 AERONCA CHAMP rebuilt and converted to 7DC in 1959—800 hours on Lycoming 115—Hanged—fabric very good—new windshield—color light cream and blue trim—two 13 gal. tanks—Sorenson sprayer internal 40 gal. tank—very good—licensed to June '65—A good sage brush airplane. **PRICE:** \$1,375 with sprayer and skis—\$1,275 less sprayer. **CONTACT:** Ken Youngquist—Circle, Montana or **PHONE:** 485-3950—mornings only.

FOR SALE: Piper Tri-Pacer—1956—VHT—full panel—**PRICE:** \$3,500—**CONTACT:** Phil Timm, P.O. Box 516—Polson, Montana.

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